

REMARKS

Reconsideration of the above-identified application, as amended and in view of the following remarks, is respectfully requested.

The Office Action mailed April 10, 2007 has been reviewed and carefully considered. The examiner has objected to some of the terms in claims 1-5 as lacking antecedent basis. In response, these claims have been amended to overcome the objections.

The Examiner's indication of allowable subject matter for claims 2, 4 and 5 are appreciated. However, at this, applicant has refrained from taking these allowable claims as applicant believes the claims as amended are allowable over the cited prior art.

Claims 1 and 3 stand rejected 35 U.S.C. '102(b), as allegedly being unpatentable over the admitted prior art.

The present invention discloses a new message format, which is provided for each of the initiation and termination of a loopback test, such that the initiation and termination of the effective loop-back test are performed using the new message format.

APA(conventional art submitted by the applicant) does not disclose as to how the termination of the loop-back test is performed at all. In addition, the description as to the loop-back test in APA is insufficient, thus fails to adequately enable the present invention. The Office Action indicates that the message disclosed on page 4 of APA is regarded as the loop-back control OAMP DU of the present invention and the message disclosed on page 5 of APA is regarded as the information OAMP DU of the present invention. However, the examiner is wrongfully equating these elements. For example, it is not mentioned in APA as to how the loop-back test termination is performed and when the loopback test is terminated. According to

the message format disclosed on page 4 of APA, it is possible to know only that the corresponding message is for requesting the loop-back test, or a responsive message to the loop-back test request ("TEST Response" disclosed in APA is used for simply responding to reception of the loopback test message).

To be more detailed, as mentioned in the background art of the detail description in the present invention, a method of controlling the loopback in an Ethernet Passive Optical Network (EPON) requires a local device sends an "loopback control OAM PDU" of a specific format to a remote device when a loop-back starts, so that the remote device, having received the loop-back control OAMPDU, performs a loop-back for a predetermined period, then determines whether or not the corresponding local device performs a loop-back of the remote device by acknowledging the loop-back state information to be transmitted by using "an information OAM PDU". At this time, the termination process of the loopback is performed according to a predetermined loopback time in a loop-back control OAM PDU, or is performed by transmitting a loop-back control OAMPDU by a loop-back time determined as '0'. In such an EPON system, there are problems in that a message used for the loop-back control is a loop-back control OAM PDU and an information OAM PDU, which causes a complexity to the process. This is because since the "information OAM PDU" is a message to be periodically transmitted regardless of the loop-back, the local device couldn't recognize the loop-back state of the remote device in real-time.

Meanwhile, the present invention provides a method of adding a predetermined field into a loopback control OAM PDU in the loop-back process message for initiation of a loop-back process and messages for termination of a loop-back process; and the local device and the remote

device performing a loopback process using the loop-back control OAM PDU into which the predetermined field has added. Thus, the present invention solves the above-mentioned problems of APA, as recited in claim 1, which recites "providing a predetermined field in a loop-back control OAM PDU (operation, administration, and maintenance - packet data unit), the predetermined field having distinguishing messages for an initiation of the loop-back process and a termination of the loop-back process; and the local device and the remote device performing the loop-back process, which includes an initiation of the loop-back process and a termination of the loop-back process, using the loop-back control OAM PDU".

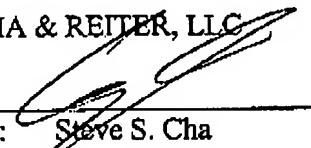
Accordingly, the present invention provides the EPON loopback process by adding the field distinguishing messages for initiation of the loop-back process and messages for termination of the loop-back process into the loop-back control OAM PDU and performing the loop-back process. Thus, the above feature of the present invention solves the above-mentioned problems, thus not anticipated or taught by APA, as suggested by the Office Action. Reconsideration and withdrawal of the rejection is respectfully requested.

Other claims in this application are each dependent on the independent claims 1 and 5, and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments, it is believed that this application is now in condition for allowance. The Examiner is invited to contact the undersigned in the event of any perceived outstanding issues so that passage of the case to issue can be realized without the need for a further Office Action.

Respectfully submitted,

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